

# TouchKit Barco TouchScreen Controller

Installation & User Manual

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## Chapter 1. Installing TouchKit

TouchKit is software that contains drivers of the touch panel and two other utilities.

### The two utilities are:

- TouchKit configuration utility

The calibration and draw test of the touch panel are done by this utility. See **Chapter 2. Configuration Utility** on page 9.

- Touch Tray (system tray application)

This is a utility for emulating the right and left button of the mouse for controlling the touch panel. Users can toggle between right or left mouse buttons using this utility. See **Chapter 3. System Tray application** on page 27.

### Follow these steps to install TouchKit.

1. Put the enclosed CD into the CD-ROM drive.
2. When Autoplay is enabled on the PC, the install menu opens automatically.

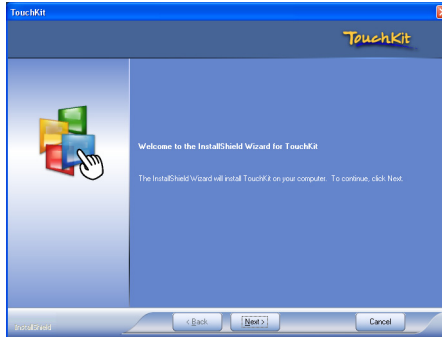
When Autoplay is not enabled, open the CD-ROM window and double-click Autorun.hta. As a consequence the install menu opens.

3. Click **Install touch screen driver** to start installation.



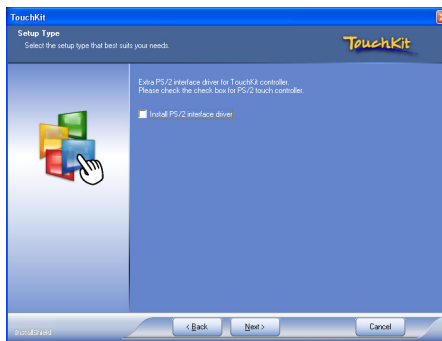
**Do not plug the USB controller in the system before the installation has been finished. In case of a multi-monitor system do not yet plug in any of the USB controllers.**

The Welcome screen appears.

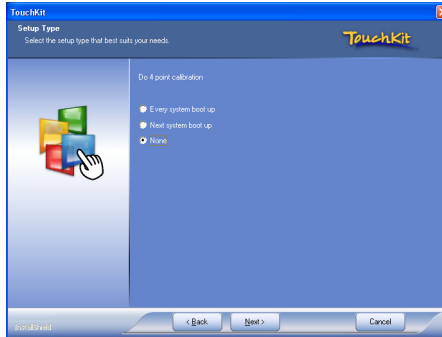


4. Click **[Next >]** to continue the installation.

In the following screen you can choose to install the PS/2 driver as well.

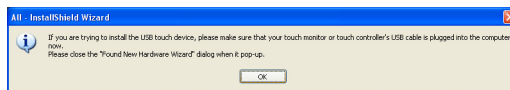


5. Don't change the default setting. The default setting is unchecked. Then Press **[Next >]** to continue installation.  
In the following screen you can select a calibration option.



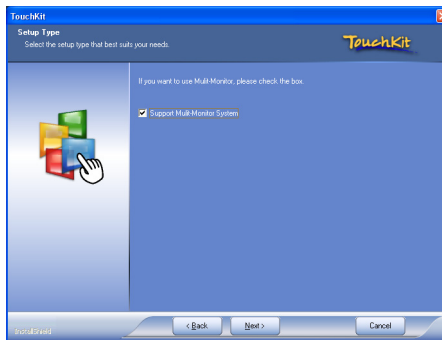
6. Don't change the default setting (**None**). Press **[Next >]** to continue installation.

The following message appears:



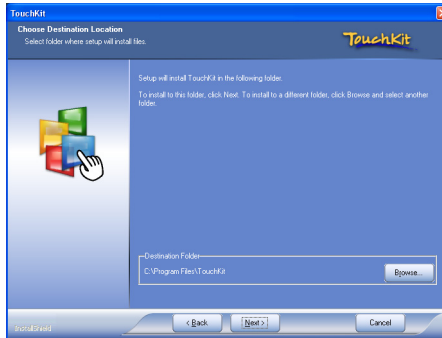
7. Now connect the display USB port to the PC. (In case of a multi-monitor system connect each display's USB port). Close the Found New Hardware Wizard dialog when it appears. Next click **OK** to continue the installation.

In the next screen you can choose to support multi-monitor systems.

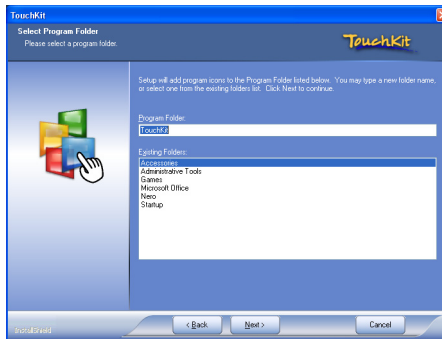


8. If you are installing a multi-monitor system, check the option **Support multi-monitor system**. If not, do not check this option.

Click **[Next >]** to continue. The Choose Destination Location screen appears.

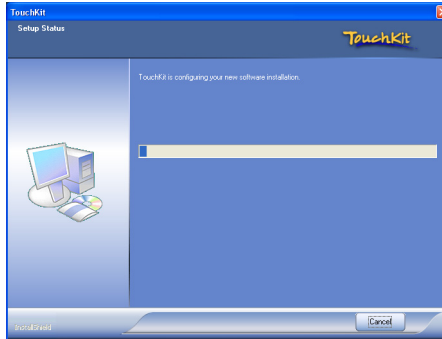


9. Select the appropriate folder where setup files will be installed. Then press **[Next >]** to continue installation. The Select Program Folder screen appears.

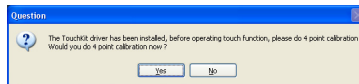


10. Enter the name of the program folder for TouchKit or press **[Next >]** to accept the default folder and continue.
11. During driver installation, the setup program will scan the COM ports to install the RS232 Touchkit controller.

Windows copies files to the disk and the setup is complete.

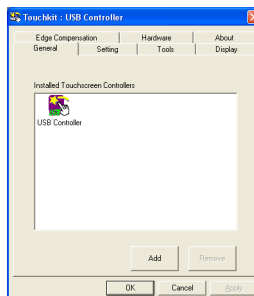


12. After Touchkit installation, a 4-point calibration is required.



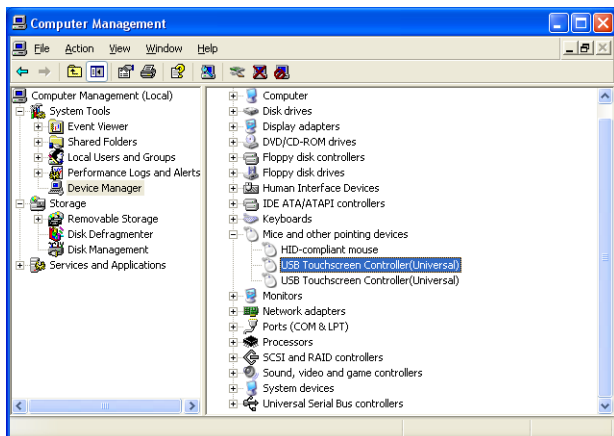
13. Press **[Yes]** and follow the instructions on the screen to perform the calibration.

When done, the TouchKit software is opened.



To use the software, please refer to the next chapter.

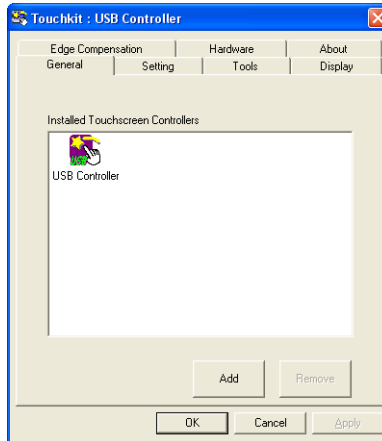
14. You can check the situation of controllers in the Device Manager. If the controller is set up well, the device manager will show the following entries.



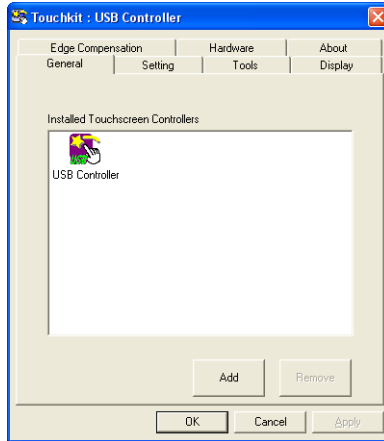


## Chapter 2. Configuration Utility

There are 7 property pages in the TouchKit utility: **General**, **Setting**, **Tools**, **Display**, **Edge coefficient**, **Hardware** and **About**. Each property page contains different functions for users to do the adjustments. Therefore, users can easily manage all the TouchKit controllers through the TouchKit utility.



### General



The controllers are displayed in the Installed Touchscreen Controllers box. Each controller corresponds to an MFC D 1219 TS display connected to a USB port.

Selecting a controller in the panel list box activates the corresponding touch panel.

USB controllers are listed automatically as soon they are plugged in. The program will also remove the controllers automatically as soon as they are unplugged.

**Note:** After adding a controller, remember to calibrate the panel first before using it.

You can also rename a USB controller. Therefore, click the current controller name. Wait an instance and then click the name again. Now you can edit the name.

The controller name is linked to the USB port. If you plug the USB cable into another USB port, the name is automatically changed.

### Multiple controllers

When multiple controllers are connected it is not always clear to which monitor they correspond. To check to which monitor a controller corresponds, proceed as follows:

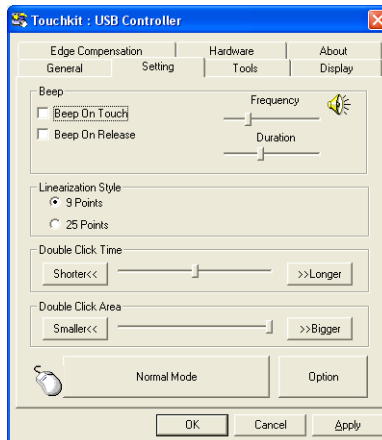
1. In the General tab page, click the controller of which you wish to check the corresponding monitor.
2. In the Tools tab, click on [Draw Test] and check on which monitor the test pattern appears. That is the monitor that is currently mapped to the selected controller.

<Add> / <Remove>

The **[Add]** and **[Remove]** buttons do not function with USB controllers.

### Setting

There are 5 functional groups in the Setting property page: **Beep**, **Linearization Style**, **Double Click Time**, **Double Click Area** and **Mouse Mode**.



### Beep options

The Beep options provide users an audible feedback when touching the panel.

Select the preferred option.

#### **<Beep on touch>**

The system will make a sound when touching the panel.

#### **<Beep on release>**

The system will make a sound when the finger is lifted from the touch panel.

#### **<Frequency>**

To adjust the sound frequency, drag the cursor from left (low frequency) to right (high frequency).

#### **<Duration>**

To adjust the sound duration, drag the cursor from left (short) to right (long).

### Linearization Style

By default, the touch screen linearization is done using 9 points. Touchkit also provides a more accurate 25 points linearization. The 25 points linearization is recommended for improved accuracy.

Select the desired number of points.

### Double click time

Double Click Time is the double-click response time for Windows. You can adjust the double-click time to make it easier performing double-clicks on the touch panel.

### Double Click Area

When performing a double-click on the touch screen it may be hard to touch the screen twice on the same spot.

Slide the Double-click area slider towards **<Bigger>** to enlarge the double-click area. Slide towards **<Smaller>** to reduce the double-click area.

Change this setting only in case you experience difficulties to perform double-clicks.

### Mouse mode

There are 5 kinds of mouse modes you can choose. The current mouse mode is displayed on the large button at the right of the mouse icon in the bottom of the Setting page. Click the button to change the mouse mode.

#### **[Normal Mode]**

Provides all the mouse functions, including the dragging function.

#### **[Click on Touch]**

Click action is executed as soon as users touch the panel.

#### **[Click on Release]**

Click action will not be executed until finger leaves the panel.

#### **[Click on Touch Without Moving Cursor]**

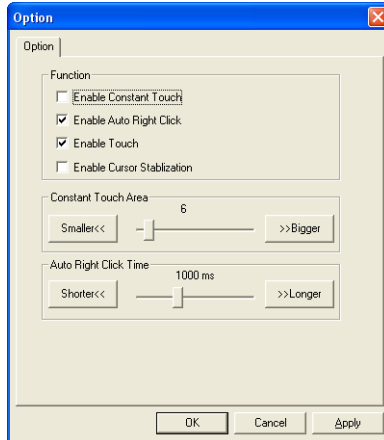
Click action is executed as soon as users touch the panel. The cursor does not move as the finger or stylus moves over the screen.

#### **[Click on Release Without Moving Cursor]**

Click action will not be executed until finger leaves the panel. The cursor does not move as the finger or stylus moves over the screen.

### Option

Touchkit provides an option for advanced Mouse settings. When the Option button is pressed, a setting property sheet will be popped up.



#### [Enable Constant Touch]

Check the Enable Constant Touch option to force the driver to stop reporting touch points when the movement is within the defined range. Therefore, the user can see a stabilized cursor instead of a chattering cursor when users touch the same point with unwanted noise.

Use this option to optimize the response of the touch screen for finger operation.

For stylus operation & drawing it is not recommended to use the constant touch feature

Use the Constant Touch Area slider to adjust the size of the constant touch area.

This option is switched off by default.

### **[Enable Auto Right Click]**

Check this option to force the driver to report a right click mouse event to OS when users perform a continuous (without moving) touch till time out.

This way the Touchtray program to activate a right click is no longer needed.

This feature helps users to perform a right click more easily using the touchscreen.

### **[Enable Touch]**

If you uncheck this option the touch screen is disabled.

### **[Enable Cursor Stabilization]**

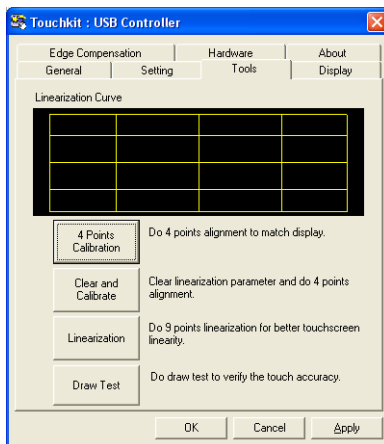
Check this option to enable software stabilization to obtain a smoother cursor movement.

### **Constant Touch Area**

With these sliders you can define the area for the Constant Touch option (See **[Enable Constant Touch]** on page 14.)

## Tools

The Tools page shows the current linearization curve and provides 4 buttons.

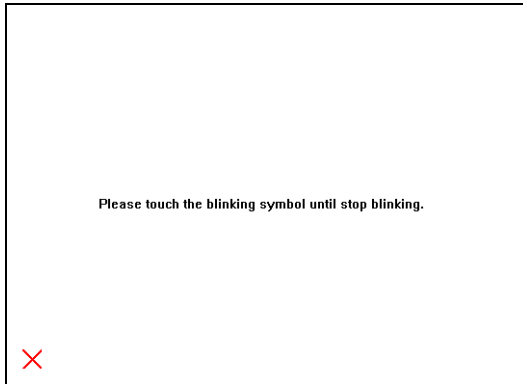


### <4 points Calibration>

The 4-points calibration allows to calibrate the touch screen and map the touch screen input to the Windows desktop.

Press **[4 points Calibration]**. The following pattern appears.





Touch the blinking symbol on the screen until the computer beeps or the symbol stops blinking.

After calibration, new calibration parameters are stored in the display memory, overwriting the previous ones. The linearization parameters however are not overwritten.



### **Important:**

- Do not touch the touch screen until the main screen appears again. Otherwise the new calibration parameters will not be written to the display memory and the calibration will have to be redone.
- Be careful to touch the screen only on the blinking symbol. If your finger or stylus touches the blinking symbol and the rest of your hand touches the screen on a different area, the calibration will not be accurate.

### **<Clear and Calibrate>**

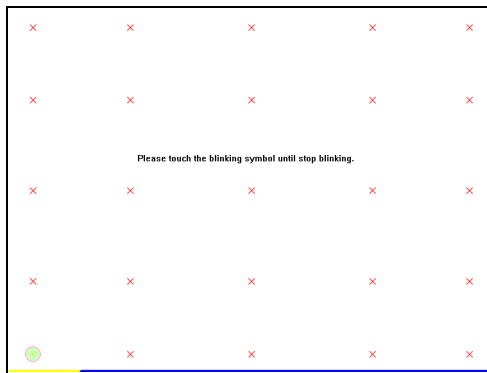
Press this button to clear the current linearization parameters and start a 4-points calibration.

### <Linearization>

Linearization can be done using 9 (default) or 25 (higher accuracy) points. The selection between 9 and 25 points is done in the Setting page.

Press **[Linearization]** to start the linearization using the number of points defined in the Setting page.

The following pattern appears.



Touch the blinking symbol on the screen until the computer beeps or the symbol stops blinking.

After linearization, new linearization parameters are stored in the display memory, overwriting the previous ones.

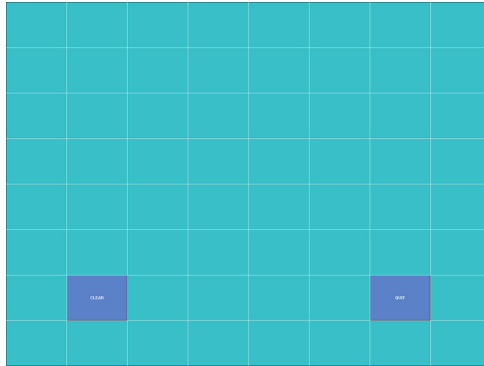


**Important:** Do not touch the touch screen until the main screen appears again. Otherwise the new linearization parameters will not be written to the display memory and the linearization will have to be redone.

### <Draw Test>

With Draw Test you can test the calibration of the touch screen.

Click on the **[Draw Test]** button. A rastered pattern appears where you can test the touch screen.

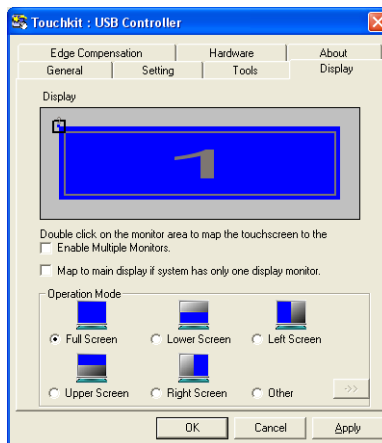


In the drawing test window, you can click **[Clear]** to clear the window. Also, you can click **[Quit]** or press the right mouse button to quit from the drawing test.

In the drawing test window, you can verify the panel linearity, calibration precision, and line drawing quality.

### Display

In the Display page you can enable multiple monitors and select the operation mode for split desktops.



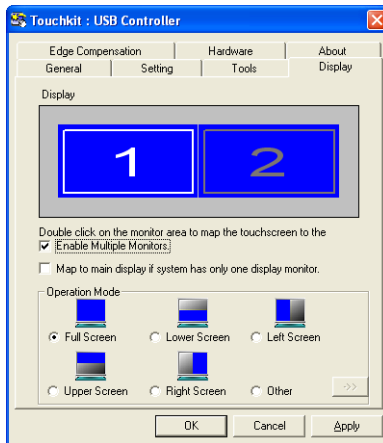
### <Multiple Monitors>

Set the check box (Enable Multiple Monitors) to enable multiple monitors mapping. Unchecking this box will disable multiple-monitor configuration, and all of the touch panel controllers will be mapped to the primary monitor.

**Note:** When using multiple touch panels, the Enable Multiple Monitors check box must be checked for every touch controller to ensure flawless operation.

The highlighted area is the monitor mapped to the selected controller.

If multiple monitors are enabled, the Display page changes as follows (example shows 2 monitors):



### To map multiple monitors:

1. Select the touch screen controller in the General Tab. The name of the selected controller is displayed in the title of the TouchKit application window.
2. In the Display tab page select the display head (layout is the same as in "Display settings - Settings") where the MFC

1219 TS is connected to by double-clicking it. The head number will become white when selected.

When using a split desktop setup, special setup is needed (see See **<Split desktop setup>** on page 21.).

3. Now touch the touch screen. If the mapping is correct, the pointer will appear on the correct screen. If the pointer appears on the wrong screen, the mapping is incorrect. Please repeat the steps above and select the correct display head.

**Note:** Mapping of monitors needs to be redone when a touch screen is plugged into a different USB port.

### **<Split desktop setup>**

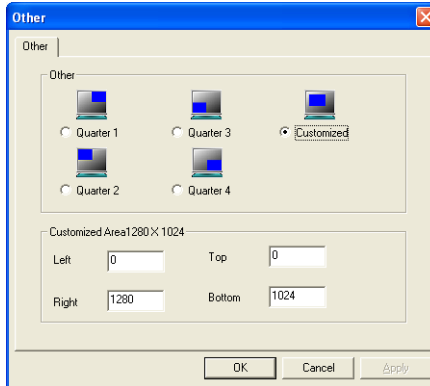
Split desktop setup is needed when your graphics board uses a spread desktop, spread over 2 or more monitors. There are several **operation modes** you can select from, at the bottom of the Display control page.

To use the Split desktop function, in the General tab page you need to select which touch screen controller you want to define the location and resolution for.

Make sure that **Enable Multiple Monitors** is checked.

You can select from a number of standard modes: Full Screen, Lower Screen, Left Screen, Upper Screen and Right Screen.

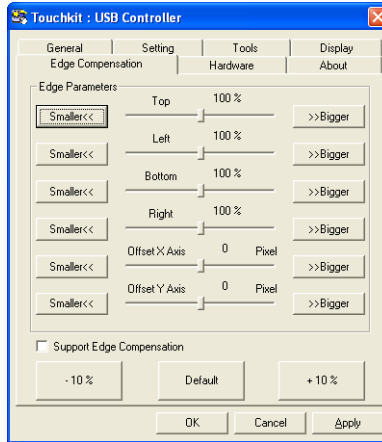
Additionally you can customize the active area. Therefore select **Other** and click the [**>>**] button. The following screen appears:



It shows the current resolution of display and users can set up the active area by inputting the value by yourself (Customized) or use the default selections (Quarter 1-4). The default value of panel resolution should be full screen as Left: 0, Right: 0, Top: 0 and Bottom: 0.

### Edge Compensation

The Edge Coefficient property page contains the functions of Edge Compensation for Top, Bottom, Left, Right, X Axis and Y Axis.



In some case, if it is difficult to touch items at the edges of the touch panel. In that case, you can set adjustments to reach the edges of the screen image.

### <Top>

If users set the Edge to **<Smaller>**, TouchKit will reduce the vertical position of the top edge. If users set the Edge to **<Bigger>**, TouchKit will extend the vertical position of the top edge.

### <Bottom>

If users set the Edge to **<Smaller>**, TouchKit will reduce the vertical position of the bottom edge. If users set the Edge to **<Bigger>**, TouchKit will extend the vertical position of the bottom edge.

### <Left>

If users set the Edge to **<Smaller>**, TouchKit will reduce the horizontal position of the left edge. If users set the Edge to **<Bigger>**, TouchKit will extend the horizontal position of the left edge.

### <Right>

If users set the Edge to **<Smaller>**, TouchKit will reduce the horizontal position of the right edge. If users set the Edge to **<Bigger>**, TouchKit will extend the horizontal position of the right edge.

### <Offset X Axis> / <Offset Y Axis>

In some cases, the cursor will be behind the finger when users touch the panel. If users cannot see the cursor when they touch the panel, users can the set X Axis or Y Axis offset to move the cursor.

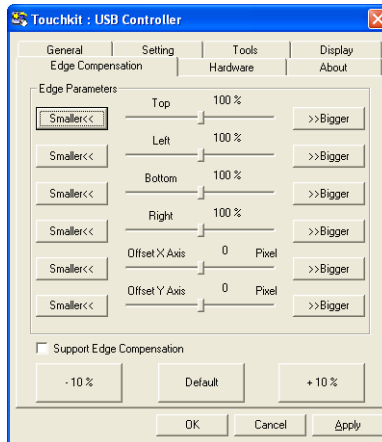
However this is generally not recommended.

If users set the Offset X Axis to **<Smaller>**, the cursor will be moved a number of pixels to the left. If users set the Offset X Axis to **<Bigger>**, the cursor will be moved a number of pixels to the right.

If users set the Offset Y Axis to **<Smaller>**, the cursor will be moved a number of pixels to the top. If users set the Offset Y Axis to **<Bigger>**, the cursor will be moved a number of pixels to the bottom.



### <Edge Compensation Switch>



Users can Enable / Disable Edge compensation at the left bottom corner of Touchkit Utility.

The +10% and -10% buttons will adjust the edge settings.

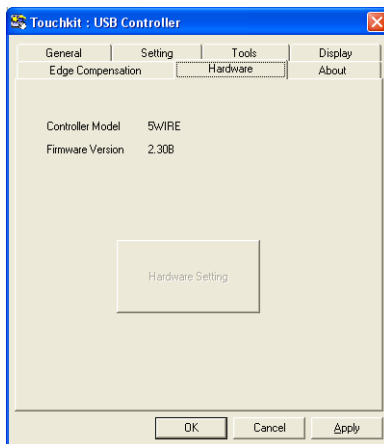
If you press the **+10%** button, the top, bottom, left and right edges will extend by 10% and the Offset X and Y Axis settings increase with 10 pixels.

If you press the **-10%** button, the top, bottom, left and right edges will decrease by 10% and the Offset X and Y Axis settings decrease with 10 pixels.

Click **Default** to restore the default settings.

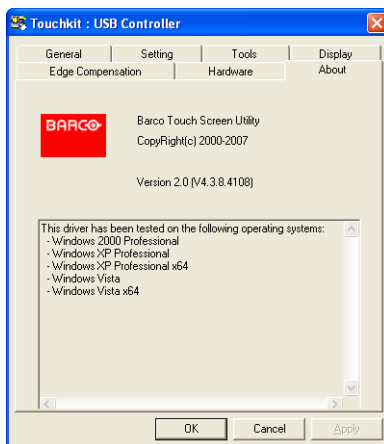
### Hardware

The Hardware tab page shows information of interface, type, firmware version for the selected controller.



### About

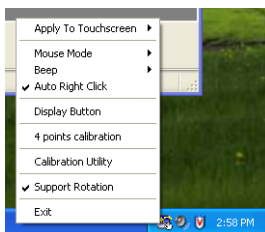
Information about TouchKit.



### Chapter 3. System Tray application

Upon installation the TouchTray is installed in the system tray, providing a number of shortcut menus.

To get access to the TouchTray menus, right-click the system tray icon. As a result, the TouchTray menu appears.



#### Apply To Touchscreen

Here you can select the USB controller to which the executed menus will apply.

#### Mouse Mode

Here you can select the desired mouse mode, as in the Setting page of the Touch kit utility. See **Mouse mode** on page 13.

#### Beep

Here you can select the desired beep option, as in the Setting page of the Touch kit utility. See **Beep options** on page 12.

#### Auto Right Click

When this option is checked, Auto Right Click is enabled. See **[Enable Auto Right Click]** on page 15.

### Display Button

You can select to which mouse button a touch on the touch panel corresponds. When checked, a small icon appears above the system tray.



Change right/left button by clicking the upper buttons of the icon. The red area expresses what button has been selected.

To hide the icon again, uncheck **Display Button** in the Touch Tray menu.

### 4 points calibration

Select this menu to start a 4-points calibration. See **<4 points Calibration>** on page 16.

### Calibration Utility

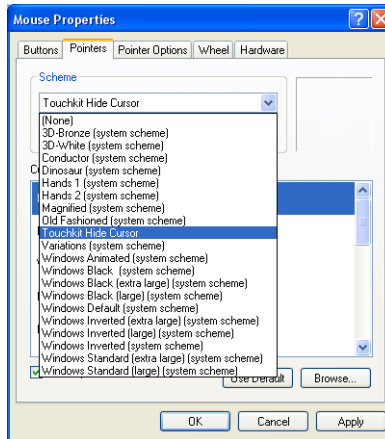
By selecting this menu the TouchKit utility application appears.

### Support Rotation

This menu is not supported.

## Chapter 4. About Cursor Visibility

Cursor visibility function provides users to hide the cursor in the display. Please go to Start / Settings / Control Panel / Mouse / Pointers / Scheme, and choose Touch Hide Cursor. Press **[Apply]** to apply the setting, and press **[OK]** to close the property page.



If you want to cancel the function of TouchKit Hide Cursor, do the steps again and choose another scheme.



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